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ABSTRACT

The District of Columbia Public Schools Nature Computer Camp (NCC) is an environmental/computer program which has been operating in the Catoctin Mountain Park (Maryland) since 1983. The camp operates for five one-week sessions serving a total of 406 regular sixth-grade students representing 84 elementary schools with an average of 81 students per session. NCC is designed to: reduce geographical isolation of urban youngsters; provide opportunities to live and learn through contact with nature; develop computer literacy; and improve the children's social and interpersonal skills. Findings of this evaluation study are as follows: (1) all aspects of the program were given a high rating by a majority of students; (2) results of the student attitude surveys on 406 students showed that student campers maintained or increased positive views toward the program; (3) postassessment scores on counselor checklists showed that campers acquired appropriate socialization; and (4) students demonstrated mastery in measurement and problem solving skills. Results on a sample of 240 cases for which both pre- and posttest science and computer scores were available revealed significant increases in both areas. A recommendation and seven appendixes which include forms, records of student participation, checklists, and student attitude surveys and rating scales complete the document. (LL)

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**CHAPTER 2 PROGRAM
EVALUATION REPORT
NATURE-COMPUTER CAMP
1991**

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June 1992

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DISTRICT OF COLUMBIA PUBLIC SCHOOLS

CHAPTER 2 PROGRAM EVALUATION REPORT
NATURE-COMPUTER CAMP
1991

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June 1992

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EXECUTIVE SUMMARY

The District of Columbia Public Schools Nature Computer Camp (NCC) is an environmental/computer program conducted in the Catoctin Mountain Park, at Camp Round Meadow, Thurmont, Maryland. The National Park Service has cooperated with D.C. schools since 1983 to keep this program operational.

The resident camp is in session from Monday through Friday, five consecutive weeks during the summer serving a total of 406 regular sixth-grade students from 84 participating elementary schools with an average of 81 students per session.

The Nature Computer Camp (NCC) is designed to reduce geographical isolation of urban youngsters, and to provide them with opportunity to live and learn through first-hand contact with nature; and thereby develop an appreciation of their environment and an awareness of environmental problems. Secondly, the program seeks to develop computer literacy in accordance with the objectives of the school system. Finally, the program is developed to increase or improve student social /interpersonal skills.

The findings for this evaluation study are as follows:

-- Overall, all aspects of the program were viewed as fun or given a high rating by a majority of students.

-- Results of the student attitude surveys on 406 students showed that the student campers maintained or increased positive views toward the program.

-- Post assessment scores on counselor checklists on 406 student campers showed that students acquired appropriate socialization equivalent to 92% of the socialization skills.

-- Students demonstrated mastery in measurement and problem solving skills.

-- Results on a sample of 240 cases for which both pre and post test science and computer scores were available revealed significant increases in both areas. It showed that at least 80% of the program participants made significant increases in their knowledge of computers; and significant gains in their knowledge of the targeted areas in stream ecology, woodland ecology, and geology.

In conclusion the implementation of the NCC Program during the Summer of 1991 was managed very competently as would be expected of a program in existence since 1983. The program packed many educational and socialization activities within a

short period of five days that had a positive impact on student achievement and socialization. However, the findings of this study should be viewed with caution. A limitation of the finding is that pre-post testing of students was done during a short five day period.

Recommendation

The program would be more beneficial if the program period was extended. After a week in the Catoctin Mountains, it could be made part of the Summer School Program. Computer literacy could be taught in Summer School. Parks in the Washington, D.C. area could be used to lengthen the "Nature" component. The extended program period would be educationally beneficial for the students and would also assist in providing more reliable data on the impact of the program.

INTRODUCTION

PROGRAM DESCRIPTION

The District of Columbia Public Schools Nature Computer Camp (NCC) is an environmental/computer program conducted in the Catoctin Mountain Park, at Camp Round Meadow, Thurmont, Maryland. The National Park Service has cooperated with D.C. schools since 1983 to keep this program operational.

The curriculum covers "basic" computer programming and environmental sciences (i.e. Stream ecology, woodland ecology, and geology) which are the highlights of the program. Each of these areas receives an equal distribution of time totaling 18 hours of instruction weekly. Classroom instruction and actual hands-on experience are included in the schedule. The computer programming is held indoors. The content areas involving environmental science are conducted outdoors primarily during hikes through woodland, stream and geology trails on the Catoctin Mountain State Park in Thurmont, Maryland. The emphasis on instruction is on both content and the scientific process. The program provides students the opportunity to use and increase their skills in making observations on the natural environment, identifying elements, collecting and analyzing specimens, making inferences and interpretations, and drawing conclusions. The computer component engages students in devising simple programs and acquiring problem solving skills. The program also provides the opportunity for interpersonal interaction and the resolution of interpersonal and personal conflicts. The resident camp is in session from Monday through Friday, five consecutive weeks during the summer. There are approximately eighty-one students in each session. It is staffed with the District of Columbia Public Schools personnel and college students, and delivers services to approximately 406 DCPS sixth-grade students.

The 1991 summer camp was funded by Chapter 2 LEA with supporting funds from the Substance Abuse Prevention and Education Branch (SAPE) and the Office of the Superintendent. In addition to regularly scheduled activities, SAPE conducted workshops focused on peer pressure and drug problems.

Need for the Program

Few opportunities are provided for the urban child to interact with nature and all of its wonders. The Nature Computer Camp (NCC) is designed to reduce geographical isolation of urban youngsters, and to provide them with an opportunity to live and learn through first-hand contact with nature; and thereby develop an appreciation of their environment and an awareness of environmental problems. Secondly, the program seeks to develop computer literacy in accordance with the objectives of the school system. Finally, the program is developed to increase or improve student social/interpersonal skills. The experience attained and the knowledge acquired by the students at the NCC, even after only a week's experience, are immense and not easily quantified.

Purpose

The purpose of the present evaluation of the NCC program is three-fold. The first is to determine the scope of the program. The second is to examine students' views and their relationship to program success. The third is to ascertain the degree of reinforcement given to science and computer concepts.

PROGRAM ELEMENTS

I. Direct Intervention Services and Adequacy of Program Services

Objective 1: The Scope of Services Provided By Staff to maintain the NCC Program

To ascertain the scope of services provided by staff to maintain the NCC Program.

Major research questions for this objective are:

- (a) What was the estimated number of staff members that participated in the Program?
- (b) What was the nature of services provided by staff to maintain the NCC Program?

Objective 2: The Scope of Services Provided to the Student Campers

To determine, through the use of surveys and data collected from the administrative office: (1) the estimated number of student campers that participated in the program, and (2) the nature of the services provided to the student campers.

Major research questions for this objective are:

- (a) What was the estimated number of student campers that participated in the program?
- (b) What were the nature of services provided to the student campers?

II. Student Attitude

Objective 3: Student Attitude Relative to the Overall Program Success

At the completion of the week in the Nature Computer Camp Program, at least 80% of the participants will show maintenance or an increase of a positive attitude toward the program and will demonstrate appropriate socialization.

Major research questions for this objective are:

- (a) What were the indicators of student campers' attitude toward the NCC program in general?
- (b) How did teachers view the instructional approaches in terms of their effectiveness in producing more positive attitude toward the learning of science and computer skills?
- (c) Was there evidence that student campers developed a more positive attitude toward interpersonal interactions?

III. Program Effectiveness

Objective 4: Program Effectiveness Relative to the Overall Academic Achievement

At the completion of the week in the Nature Computer Camp program, participants will demonstrate a significant gain in knowledge in the areas of stream ecology, woodland ecology, geology, and in knowledge about computers.

Major research questions for this objective are:

(a) Did the student participants demonstrate significant gains in the areas of stream ecology, woodland ecology, geology, and computers.

(b) Did the student participants demonstrate significant gains in the overall knowledge test.

METHODOLOGY

Instruments

Several instruments were used in this evaluation. Among these were:

1. One Student Camper Questionnaire

--- Solicited student camper responses to provide answers for the relevant evaluation questions in Objectives 2 and 3.

2. One Teacher Checklist (NCC Knowledge Test)

--- Solicited information from teachers to generate answers for the relevant evaluation questions enumerated under Objectives 1 and 3.

3. One Counselor Checklist (Attitude Scale)

--- Solicited information from counselors to generate answers for the relevant evaluation questions enumerated under Objectives 1 and 3.

4. One Student Camper Achievement Test Questionnaire

---Solicited student camper responses to provide answers for the pre-post test questions enumerated under Objective 4.

Data Collection Procedures

Surveys were administered to student campers, teachers, and counselors during the summer program. The target population includes sixth grade students from 84 participating elementary schools. For the present evaluation; 406 students, 9 counselors, and 5 teachers from the NCC comprised the sample. A random sample of 240 students were selected for the pre and post-test analyses.

Data Analysis

To meet the above enumerated evaluation objectives, selected descriptive statistics were generated to summarize the survey responses of student campers, teachers, and counselors. Correlated t-test analyses with the significance level set at .05 alpha level were performed to measure the mean gain from pre-test to post-test (a 5 day period) for a matched sample of students.

EVALUATION FINDINGS

The results of the pre and post tests achievement measures, and the survey responses of teachers/counselors/students are presented in this section. These findings from the evaluation results are outlined within the framework of three NCC program elements and four evaluation objectives.

I. Direct Intervention Services and Adequacy of Program Services

Objective 1: The Scope of Services Provided By Staff to maintain the NCC Program

Data obtained from the administrative office of the NCC program revealed the following:

Staff members of the NCC program include: The program coordinator; the camp manager; five camp teachers; nine recreational aides/camp counselors; and a nurse.

The program coordinator's responsibilities include: securing of contract for food and lease of facility; identifying all needed staff members; arranging for logistical support; securing needed equipment and supplies; preparing and forwarding correspondence to principals, building contact persons, and parents; planning and presenting orientation workshops for building contact person and principals; scheduling student-campers and confirming their attendance; planning and implementing the three-day staff orientation prior to the arrival of the students; monitoring the day-to-day operation of the program; and preparing reports.

The camp manager resides at the campsite and supervises teachers, camp counselors, and the nurse; monitors the food service and other logistical support; and assures that the daily schedule of activities is being followed. The camp manager is

also responsible for daily and end-of-week inspections and any adjustments in scheduling should the need arise. The camp manager will be a licensed bus driver, unless alternative arrangements can be made utilizing other staff members as drivers.

The five camp teachers provide instruction in environmental education (stream ecology, woodland ecology, and geology) and computer technology. They provide supervision during the recreational program and during other extra-curricula activities. At least one of the teachers will be a licensed bus driver to assist with transporting students within the park (Catoctin Mountain Park).

Nine recreational aides/camp counselors assist teachers in their instructional programs and supervise students on the nature trails, during recreational activities, evening programs, KP (Kitchen Police) detail, dormitory clean-ups and bed-time activities. They also facilitate the pre and post "rap sessions". One aide was used as an office assistant and clerk typist.

The nurse renders first aid for camp ailments or injuries, administers medicines brought from home, and determines when additional medical aid is needed; checks medical records of all student campers to determine if there are any medical limitations or restrictions; works cooperatively with the "on-call" doctors; and assists the camp manager with office duties.

Activities provided in the Camp were as follows:

- (a) First Aid Workshop;
- (b) Interpersonal Relationship Seminar;
- (c) Computer Training Workshop;
- (d) Camp Safety Seminar;
- (e) Trail Orientation;
- (f) Small Group Planning.

In addition to the regularly scheduled activities; Substance Abuse Prevention Education (SAPE) staff conducted workshops at the camp site for staff and students. The workshops focused on peer pressure and drug problems.

Objective 2: The Scope of Services Provided to the Student Campers

Data collected from the NCC administrative office showed:

A total of 406 regular sixth-grade student campers from 84 participating elementary schools were served by the 1991 NCC program.

Camp activities began with participants following daily schedules. The project staff supervised, taught the students, and conducted student assessments.

Student campers used the hike-of-trails experience to perform actual measurements and collected data such as measures of (1) soil/water characteristics in terms of PH (acid or alkaline content) chemical contents and temperature, (2) weather conditions (relative humidity, wind speed and direction, temperature and air pressure), and (3) rate of flow of a mountain stream. Participants also had hands-on computer lab exercises in basic programming.

Student campers participated in community living experiences through camp-site scavenger hunts, nature bingo, computer games, KP duty, dorm clean-up, and recreational activities such as mini-olympic activities, and organized aerobic exercises. Students were also given information on socialization and expected behavior; they attended counselor led social/interpersonal skills "rap-shops"; and the counselors completed individual student camper socialization checklists for all participants (See Table 3). Students were given certificates of participation at the end of their camp period.

II. Student Attitude

Objective 3: Student Attitude Relative to the Overall Program Success

Student attitude surveys indicated that most students "agreed a lot" that it was fun using computers (76.4%); collecting small animals from stream (75.2%); making friends with students from other schools (70.3%); and learning about computers (68.3%). (See Table 1). Overall, all aspects of the program were viewed as fun or given high ratings by a large majority of students. (See Tables 1 & 2).

Table 2 relates also that the "mini-olympics" and stream ecology were rated highest (5) by the largest percentage of students, 78% and 72.5%, respectively.

Data generated from the survey of student attitudes showed that at least 80% of the program participants increased or maintained a positive attitude towards the program. The outcomes showed that positive socialization did occur (See Table 1). The checklist completed by the counselors on 406 students showed the mean score to be equivalent to 95% on a 100% scale for a positive socialization. The checklist included such items as "follows camp rules and regulations" and "maintains a good relationship with other campers" (See Table 3).

111. Program Effectiveness

Objective 4: Program Effectiveness Relative to the Overall Academic Achievement

A teacher checklist was completed for each student with the emphasis on subject matter skills. On these checklists, students showed excellent achievement of the subject matter, averaging 100% skill mastery in the areas of computers, stream ecology, woodland ecology, and geology (See Table 4). Student participants also demonstrated mastery in measurement and problem solving skills.

From pre-test to post-test (a 5 day period); mean student camper performance increased significantly in computer knowledge, stream ecology, woodland ecology, and geology knowledge (See Table 6). Significant increases occurred also in the overall knowledge test (See Table 5).

The mean subtest and overall knowledge scores increased significantly as follows:

- Computer knowledge performance increased from 5.7 to 8.8.
- Stream ecology knowledge performance increased from 3.1 to 4.7.
- Woodland ecology knowledge performance increased from 3.4 to 4.9.
- Geology knowledge performance increased from 1.4 to 3.5.
- Overall knowledge performance increased from 13.6 to 22.0.

Caution must be used when examining these results. A limitation of the study is the 5 day interval (a very short interval) between pretest and post-test.

CONCLUSION

The implementation of the NCC program during the Summer of 1991 was managed very competently as would be expected of a program in existence since 1983. The program packed many educational and socialization activities within a short period of 5 days that had a positive impact on student achievement and socialization.

RECOMMENDATION

The program would be more beneficial if the program period was extended. After a week in the Catoctin Mountains, it could be made part of the Summer School Program. Computer literacy could be taught in Summer School. Parks in the Washington, D.C. area could be used to lengthen the "Nature" Component. The extended program period would be educationally beneficial for the students and would assist in providing more reliable data on the impact of the program.

TABLE 1. Percent of Students who Reported Agreement and Disagreement on Camp Activities that were Fun

QUESTIONS	Agree a lot	Agree a little	Undecided	Disagree a lot	Disagree a little
It is fun to:					
learn at an outdoor school	47.7	35.4	5.2	6.6	5.1
Live and work with students from other schools	56.5	30.7	5.2	4.2	3.4
Make friends with students from other schools	70.3	21.4	4.9	2.2	1.2
Solve science problems	34.6	39.8	11.5	7.6	6.3
Learn about rocks and soils	44.5	40.8	4.2	3.7	6.9
Collect rocks and soils	44.7	34.4	11.8	3.4	5.6
Learn about animals that live in the forest	62.7	26.5	4.7	4.4	1.7
Learn about plants in the forest	48.6	35.6	6.9	3.9	4.9
Collect small animals from stream	75.2	16.5	2.5	2.7	3.1
Learn about computers	68.3	22.9	4.4	2.5	2.0
Use computers	76.4	16.0	3.9	1.2	2.4
Be taught by different teachers	45.2	34.9	10.1	3.9	5.9

TABLE 2. Percent of Student Rating Camp components and Activities on a Scale of Low (1) to High (5).

ITEMS	1	2	3	4	5
New Things I Learned	1.7	2.5	13.7	26.0	56.0
Stream Ecology	1.2	2.7	4.9	18.7	72.5
Woodland Ecology	6.9	4.7	13.3	25.9	49.1
Geology	4.2	4.7	12.9	28.5	49.6
Computer Class	3.4	5.9	13.5	25.1	52.0
Counselors	5.5	5.2	13.2	19.9	56.2
Dormitory	3.5	4.4	11.9	34.8	45.4
Food	15.8	12.8	20.2	28.9	22.2
Mini Olympics	2.7	1.2	5.2	12.7	78.0
Scavenger Hunt	6.4	6.2	15.8	31.1	40.5
Nature Bingo	9.8	6.1	18.9	28.0	37.1
Skits	4.0	3.2	9.4	23.5	60.0
Computer Practice	5.5	5.2	15.9	27.5	45.9
The Whole Camp	2.5	2.7	12.1	29.6	53.2
Teachers	2.7	3.4	11.1	23.9	58.9
Camp Manager	6.9	4.7	9.1	21.7	57.6

TABLE 3. Percent of Students Reported by Camp Counselors as Maintaining Certain Social Behaviors All of the Time, Most of the Time, Some of the Time, and Never.

SOCIAL BEHAVIORS	All of the time	Most of the time	Some of the time	Never	Don't know
Follows camp rules and regulations	89.4	9.1	1.5	-	-
Keeps camp facilities and grounds clean	93.6	4.4	1.7	0.2	-
Uses camp equipment with care	94.3	3.9	1.7	-	-
Remains within the boundaries of the camp at all times	94.8	2.9	2.2	-	-
Practices safety rules on trails and at the campsites	92.9	4.4	2.7	-	-
Stays away from unsupervised areas	94.3	3.4	2.2	-	-
Participates in camp activities	89.4	9.1	1.5	-	-
Reports to camp activities on time	90.9	5.9	3.2	-	-
Completes assignments on time	92.4	4.2	3.2	0.2	-
Follows instructions of camp personnel	85.5	10.8	3.4	0.2	-
Is verbally abusive	0.2	1.0	94.3	0.2	-
Is physically abusive	0.7	1.7	97.5	-	-
Is cooperative	84.8	10.8	3.9	0.5	-
Maintains a good relationship with other campers	89.7	8.1	2.0	0.2	-
Maintains a good relationship with teachers & counselors	88.0	8.1	3.7	0.2	-

TABLE 4. Percent of Students Reported By the Teachers as Mastering a List of Competencies and Skills

	SKILLS	Mastered	Not Mastered	Not Observed
COMPUTER SKILLS:	Set up computer for operation	100	-	-
	Turn computer on and off	100	-	-
	Identify component and functions	100	-	-
	Distinguish between commands and statements	100	-	-
	Locate points on graph paper	100	-	-
	Plot points on CRT	100	-	-
	Graph a rectangle	100	-	-
	Write a program for plotting a rectangle	100	-	-
	Construct a scrapbook on computer literacy	100	-	-
WOODLAND ECOLOGY SKILLS:	Name and identify at least three different trees found on the trail	100	-	-
	Give examples of plant and animal interdependency	100	-	-
	Name a producer and tell what it produces	100	-	-
	Name three consumers in a woodland community	100	-	-
	Describe the role of a decomposer	100	-	-

TABLE 4. (Continued)

STREAM ECOLOGY:	SKILLS	Mastered	Not Mastered	Not Observed
	Measure the rate of flow, temperature and depth of a stream	100	-	-
	Use collected stream specimens to help describe the kinds of organisms that populate a stream	100	-	-
	Name and distinguish the various stages of metamorphosis	100	-	-
	Describe at least one example of interdependence in a stream	100	-	-
	Infer how factors such as temperature, velocity, pH and light can affect the numbers and kinds of organisms in a stream	100	-	-
GEOLOGY SKILLS:	Classify rocks as igneous, sedimentary or metamorphic	100	-	-
	Name at least three characteristics of rocks and minerals	100	-	-
	Describe three characteristics that make soils different	100	-	-
	Identify and describe some evidence of weathering and erosion	100	-	-
	Use a compass to locate different directions	100	-	-
	Describe and infer evidence of the earth undergoing constant change	100	-	-
	Other skills	100	-	-

TABLE 5. Performance on the Overall Knowledge Test for Students Matched on Pre-test and Post-test

OVERALL KNOWLEDGE TEST	NUMBER OF STUDENTS	MEAN	DIFF.	S.D.	T- VALUE	SIG. LEVEL
Pre-test	240	13.6	8.4	3.7	36.06	0.000
Post-test	240	22.0		2.8		

OVERALL TEST SCORES

Grade 8

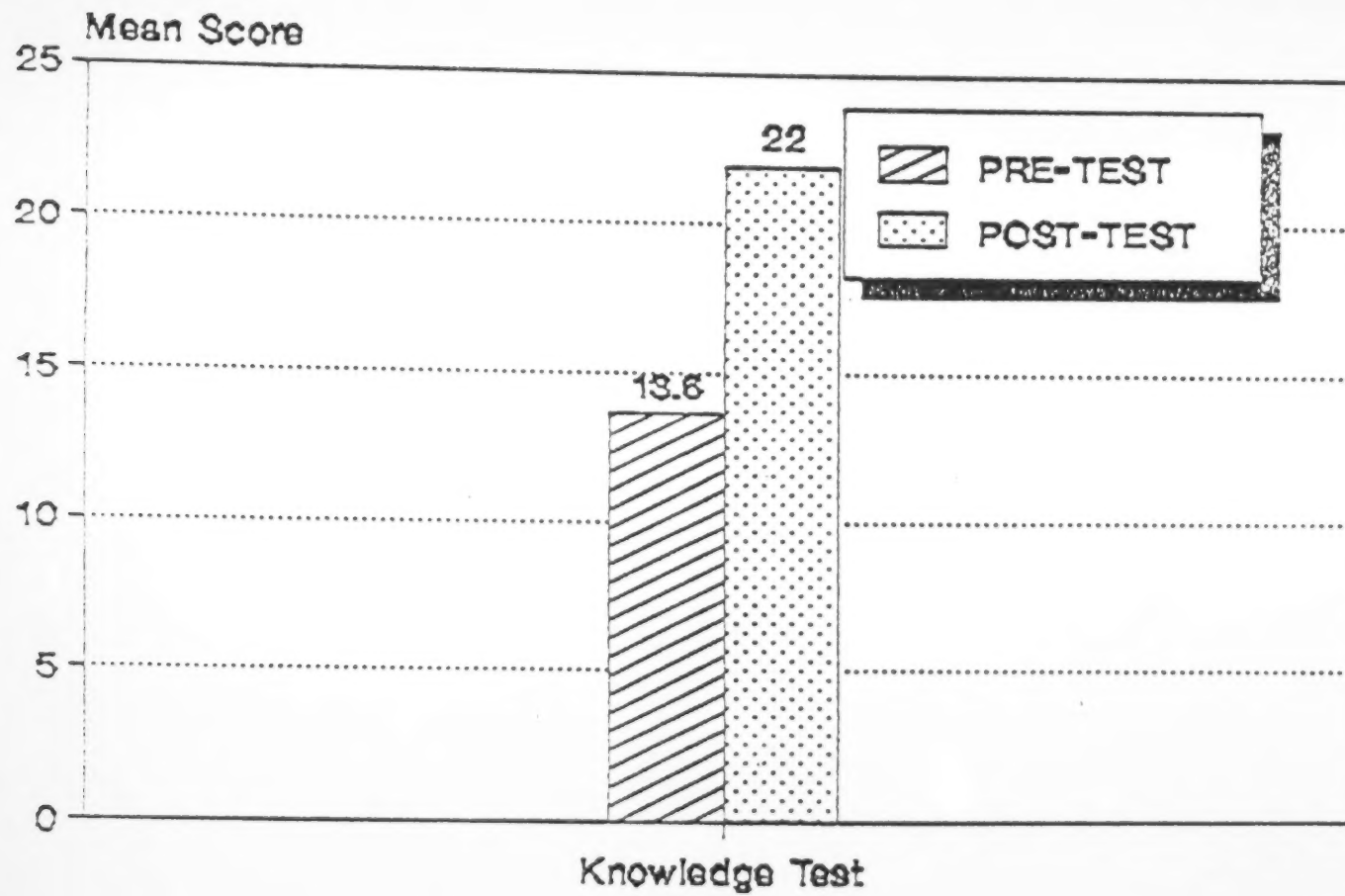


Figure 1

TABLE 6. Performance on Test for Computer Information, Stream Ecology, Woodland Ecology, and Geology for Students Matched on Pre-test and Post-test

KNOWLEDGE SUB-TESTS	NUMBER OF STUDENTS	MEAN	DIFF.	S.D.	T-VALUE	SIG. LEVEL
Computer Pre-test	240	5.7	3.1	1.9	18.56	0.000
Computer Post-test	240	8.8		2.5		
Stream Ecology Pre-test	240	3.1	1.6	1.2	20.64	0.000
Stream Ecology Post-test	240	4.7		0.5		
Woodland Ecology Pre-test	240	3.4	1.5	1.5	14.11	0.000
Woodland Ecology Post-test	240	4.9		1.3		
Geology Pre-test	240	1.4	2.1	1.0	25.15	0.000
Geology Post-test	240	3.5		1.0		

KNOWLEDGE SUB-TEST SCORES

Grade 6

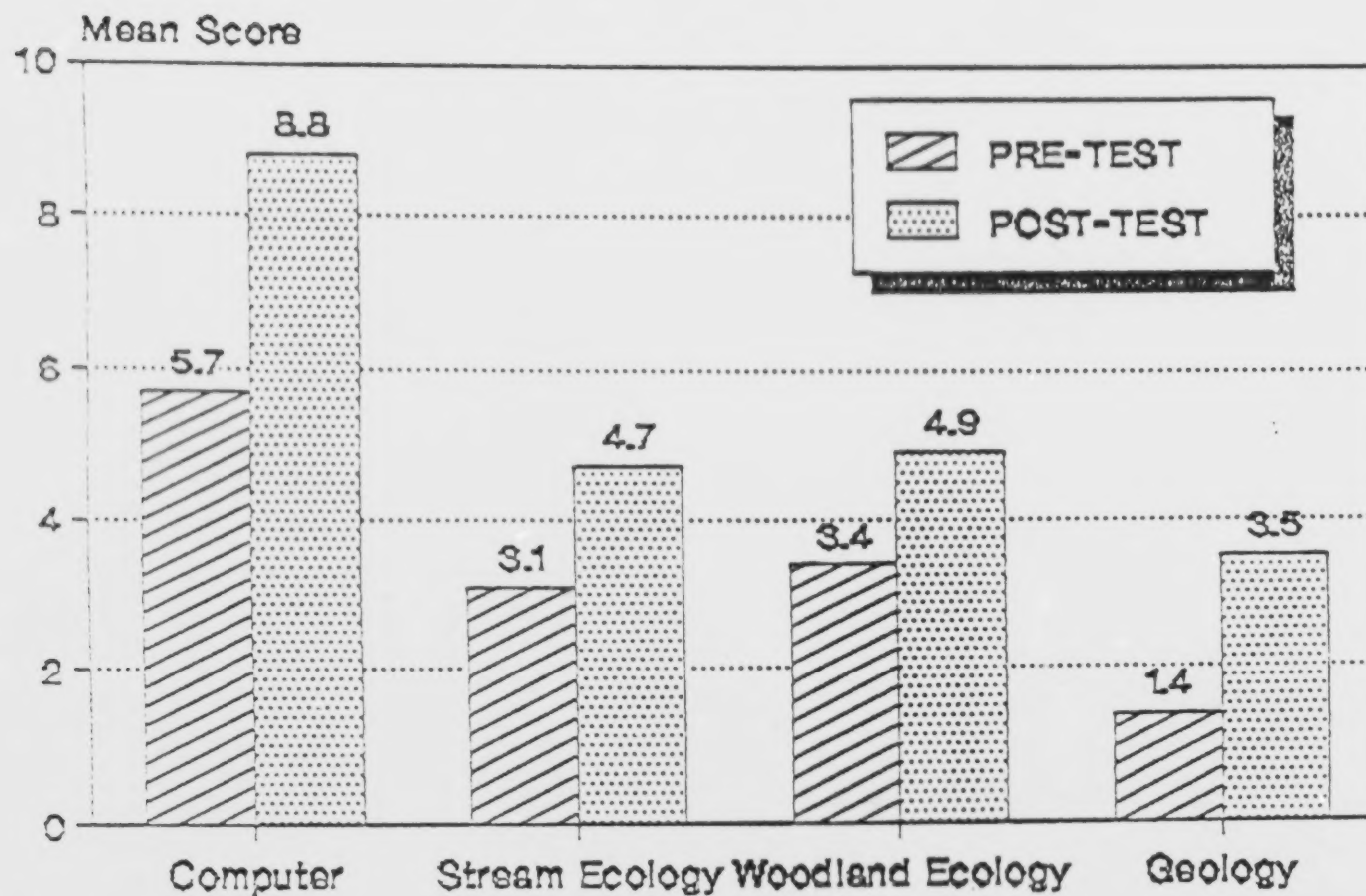


Figure 2

APPENDIX A
CORRESPONDENCE, FORMS AND SCHEDULES
FOR PLANNING AND IMPLEMENTING THE
NATURE-COMPUTER CAMP PROGRAM

DISTRICT
OF
COLUMBIA
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OFFICE OF THE VICE SUPERINTENDENT
DIVISION OF CURRICULUM AND EDUCATIONAL TECHNOLOGY
LANGDON ADMINISTRATIVE UNIT
2011 AND EVARTS STREETS, N.E. WASHINGTON, D.C. 20018

April 3, 1991

Memorandum To: Mr. Jerry Powell
Facilities Management

From: Dorothy Barton *DEB*
Director, Nature Computer Camp

Subject: Installation of Telephones at Camp Round Meadow for 1991
Nature Computer Camp

The Science Department of the District of Columbia Public Schools in cooperation with the National Park Service will operate the Nature Computer Camp at Camp Round Meadow again this summer. The camp is located in the Catoctin Mountain Park on Manahan Road off Maryland Route #77, Thurmont, Maryland.

We are requesting that two telephone lines be installed at the site by Monday, June 24, 1991. There should be two instruments with each having both lines. Please install one phone in the Environmental Center in the room which is used as the camp office, and the other in dormitory #4 in the staff room facing west. Termination of this service should be August 9, 1991 at the close of business (4:30 p.m.).

Ms. Robbins in your office assisted us last year; however, if further information is needed, please contact me on 576-7817.

Thank you for your cooperation.

DB :cc

DISTRICT
OF
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OFFICE OF THE VICE SUPERINTENDENT
DIVISION OF CURRICULUM AND EDUCATIONAL TECHNOLOGY
LANGDON ADMINISTRATIVE UNIT
20TH AND EVARTS STREETS, N.E. WASHINGTON, D.C. 20018

April 3, 1991

Memorandum To: Mr. William Bedford, Director
Support Services Division

Subject: Use of School Bus for the Nature Computer Camp

We would like to make use of one school bus, as we have done in past summers, for the 1991 Summer Nature Computer Camp. One of our teachers, Richard Egress, is licensed to drive the bus. We would like a second teacher, Johnnie Long, to be licensed to drive. Please advise us as to the procedures for licensing this teacher. Our first need for a bus will be for our staff orientation, June 24-26, 1991. We would like to pick-up the bus at 8:00 a.m. on June 24, 1991 and return it by 4:30 p.m. on June 26, 1991.

Secondly, the camp for students begins July 8 and ends August 9, 1991. We will need a bus available for departure at 8:00 a.m. on Monday, July 8, 1991. Arrangements have already been made with National Park Service personnel for adequate storage of the vehicle. We will return the bus on Friday August 9, 1991. Also, we will need an Amoco gasoline credit card for purchase of gasoline for the bus.

If there are any additional questions concerning this request, please contact me in my office on 576-7817 or 18.

Sincerely,

Dorothy Barton, Director
Nature Computer Camp

Approved

Roger J. Fish
William J. Bedford

DB:cc

cc: Mr. Ronald Flowers
Mr. Johnnie Long



OFFICE OF THE VICE SUPERINTENDENT
DIVISION OF CURRICULUM AND EDUCATIONAL TECHNOLOGY
LANGDON ADMINISTRATIVE UNIT
20TH AND EVARTS STREETS, N.E. WASHINGTON, D.C. 20018

April 4, 1991

Memorandum To: Parent/Guardian

From: Dorothy Barton, Director
Nature Computer Camp

Subject: Nature Computer Camp - Student Eligibility/Invitation

We are happy to announce that the District of Columbia Public Schools' Nature Computer Camp will operate again this summer from July 8 - August 9, 1991. The Nature Computer Camp creates an opportunity for DCPS sixth grade youth to gain an understanding and appreciation of their natural environment, enhance their skills in computer technology, strengthen their self-esteem, and develop group dynamics, which will foster positive group interactions.

The program operates at Camp Round Meadow in the Caloctin Mountain Park, Thurmont, Maryland. Camp Round Meadow is maintained by the National Park Service.

Students now completing the sixth grade are eligible to participate. If you would like for your child to attend the Nature Computer Camp for one week, please complete the attached registration form. Also, a written verification of a recent physical examination, signed by the examining physician, must be submitted with the registration form before the application can be processed. Current medical or health insurance (Medicaid is acceptable) is a must for each child.

Please submit the completed application to your child's school no later than May 10, 1991. A camp coordinator in your child's school will collect and forward all completed applications to this office. When the applications are received in this office, each student will be assigned one week to attend camp. As soon as the scheduling is completed, we will send a letter of confirmation of each student to the camp coordinator in your child's school.

Questions concerning the program may be directed to Dorothy Barton in the Science Office, Division of Curriculum, Langdon Elementary School, 576-7817 or 18.

DB:cc

Attachment

ROUND MEADOW NATURE - COMPUTER CAMP

Division of Curriculum
Langdon Elementary School
20th & Evans Streets, N.E.
Washington, D.C. 20018
Telephone: (202) 576-7817 or 18

ROUND MEADOW NATURE COMPUTER CAMP
CATOCTIN MOUNTAIN PARK - THURMONT, MARYLAND

REGISTRATION

NAME: _____ DATE OF BIRTH: _____ SEX: _____

HOME ADDRESS: _____ ZIP CODE: _____ TELEPHONE: _____

SCHOOL: _____ TEACHER'S NAME: _____

EMERGENCY CONTACT: (PLEASE PRINT) _____

WORK PHONE: _____ NIGHT PHONE: _____

HEALTH INSURANCE PROVIDED: Company is: _____

Policy Number is: _____

Parent's or Guardian's Consent:

I hereby request that _____ be permitted to attend Round Meadow Camp at Thurmont, Maryland and participate in all the activities of the Nature Computer Camp Program for one week between July 6 - August 7, 1992. I would prefer that my child NOT be scheduled for the week beginning _____ and ending _____. I understand that the scheduling is done on a school by school basis and on a first come first served plan.

With the understanding that the utmost care will be taken to insure my child's safety and welfare, I authorize the Camp Director to act for me according to his/her best judgement and ability in any emergency that may arise requiring medical care or otherwise.

I understand that my child must have a physical examination before he/she can attend. If the examination cannot be done by the school physician, I will be prepared to take my child to a neighborhood health clinic or my personal physician.

Date: _____ Parent/Guardian Signature _____

(please PRINT Parent/Guardian Name on this line)



MULTIPURPOSE PHYSICAL EVALUATION FOR YOUTH

1. Name Address Tele.
Sex B.D. School Grade
Clinic Referring Agency
Parent or Guardian Address Tele.

2. Reason for Exam: ☐ Camp ☐ Work Permit ☐ Training ☐ Recreation ☐ Sports ☐ Other

3. History (Answer yes/no; describe and/or date)

a. Under medical care now? No ☐ Yes ☐

b. Taking any regular medications? No ☐ Yes ☐

c. Any recent (6 mos.) illnesses, accidents, operations? ☐ No ☐ Yes ☐

d. Exposed to contagious disease in past month?
No ☐ Yes ☐

e. Any restriction of activities? No ☐ Yes ☐

f. Menses- Regular ☐ Not Regular ☐

g. SUBJECT TO (Check ☐, if yes, X, if no)

Seizures	☐	Abdominal pains	☐
Fainting spells	☐	Joint pains	☐
Frequent colds	☐	Constipation	☐
Sinus trouble	☐	Bedwetting	☐
Ear trouble	☐	Sleepwalking	☐
Allergies	☐	Other	☐
Poison ivy, oak, sumac	☐		

h. PAST ILLNESSES Check ☐, if yes, X, if no)

Chicken pox	☐
Mumps	☐
Red measles	☐
German measles	☐
Whooping cough	☐
Scarlet fever	☐
Polio	☐
T.B.	☐
Rheumatic fever	☐
Diphtheria	☐
Fracture	☐
Hernia	☐
Heart trouble	☐
Asthma	☐
Hay fever	☐
Diabetes	☐
Epilepsy	☐
Appendicitis	☐
Allergy (including drugs)	☐
Other	☐

i. Date of Last Immunizations:

Smallpox	Measles
Tetanus	Typhoid
Diphtheria	Polio
Pertussis	Other

4. Physical: ☒ Normal; X-Abnormal (describe below); O-Not examined

Ht.	Wt.	B.P.	Color vision
Snellen: without glasses	R 20/	L 20/	Hearing
with glasses	R 20/	L 20/	
Nutrition	☐	Throat	☐
Skin	☐	Tonsils	☐
Scalp	☐	Teeth, gums	☐
Eyes	☐	Neck	☐
Ears	☐	Heart	☐
Nose	☐	Lungs	☐
		Abdomen	☐
		Genitalia	☐
		Feet	☐
		Orthopedic	☐
		Glands	☐
		Behavior	☐
		Other	☐

5. Abnormalities:

Disposition: ☐ ACCEPTED ☐ REJECTED (reasons)

Limitations (describe):

Referrals:

6. Signature Date

INSTRUCTIONS

Referring Agency Copy—Original-White

School Health Record Copy—Yellow

Recommended Clothing and Personal Articles

Each participant will need:

1. A pair of comfortable walking/hiking shoes and a pair of tennis shoes
2. A pair of high top rubber boots or overshoes
3. A jacket (light weight)
4. A pair of pajamas
5. 2 or 3 complete outfits of old clothes (jeans/slacks, sweatshirts, tee shirts.)
6. 4 or 5 pairs of socks
7. 3 or 4 complete sets of underwear
8. Towel and washcloth
9. Shower shoes (flip flops)
10. Comb, toothbrush, toothpaste, soap, deodorant, lotion
11. A rain coat
12. A set of sheets and a blanket or a sleeping bag
13. A pillow (if desired)
14. Flashlight with batteries
15. Feminine hygiene articles (females)

Campers are not allowed to bring the following articles: radios; television; tape recorders; valuables (such as expensive jewelry or watches); any knives, chains, martial arts or other weapons ; any drugs except those prescribed by a physician (these must be delivered to the camp nurse.)

Tagging: To assure proper identification, all personal belongings should be stamped or initialed with indelible ink.

All clothing and other belongings should be packed in ONE piece of luggage or durable bag.

Personal Property: The staff and camp administration will not be responsible for loss or theft of personal property; however, every precaution will be made to protect them.

Deadline: May 17, 1990

Nature Computer Camp
Camp Round Meadow
Summary Sheet

Contact Person: _____ School: _____

Please return this summary sheet enclosed with student application forms.

- a. List the names of the 10 student applicants and 5 alternates.
- b. In column 1, check off that a copy of each child's physical examination is included.
- c. Record health insurance information for each child in columns 2 and 3.

	#1	#2	#3
<u>Student's Name</u>	<u>Phy. Exam. signed by doctor</u>	<u>Health Insurance Policy #</u>	<u>Health Insurance Company</u>
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
<u>Alternates</u>			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____

Principal's Signature: _____

Date: _____



OFFICE OF THE VICE SUPERINTENDENT
DIVISION OF CURRICULUM AND EDUCATIONAL TECHNOLOGY
LANGDON ADMINISTRATIVE UNIT
20TH AND EVARTS STREETS, N.E. WASHINGTON, D.C. 20018

May 13, 1991

Memorandum To: Mr. Bernard Braddock, Principal
Miner ES

Through: Dr. Roger J. Fish
Assistant Superintendent
Division of Curriculum and Educational Technology

Subject: Use of IBM Computers for Summer
Nature Computer Camp

This memo is in response to our telephone conversation requesting the use of your IBM Computers for the 1991 Summer Nature Computer Camp. We will be in need of the computers from June 24 through August 9, 1991. This time period includes our staff orientation and the five week program for students.

The specific items needed are 10 each of the following: monitors, system units, and keyboards, also, accompanying cables and power strips. We will need to borrow two printers, but you will be contacted individually regarding the use of your printer. Please use your original cartons for the packaging of these items, if you have them. If you need assistance in preparing them for pick-up, please contact me. To facilitate our request to the Support Services Division for transporting the equipment to Camp Round Meadow in Thurmont, Maryland, we will need from you, a copy of the listed serial numbers for all of the requested items. If you will let me know when the lists of serial numbers are ready, I will come by your building to get them.

We will inform you later of the scheduled date that the warehouse trucks will be coming to pick-up the computers. If there are additional questions contact me on 576-7817.

Thank you for your consent to use your computers.

Sincerely yours,

Dorothy E. Barton
Nature Computer Camp

DEB:cc

cc: Dr. Constance Clark
Mr. Walter Henry



OFFICE OF THE VICE SUPERINTENDENT
DIVISION OF CURRICULUM AND EDUCATIONAL TECHNOLOGY
LANGDON ADMINISTRATIVE UNIT
20TH AND EVARTS STREETS, N.E. WASHINGTON, D.C. 20018

August 9, 1991

Memorandum To: Dr. Doris Rhodes, Director
Chapter II Programs

From: Dorothy Barton, Coordinator
Nature Computer Camp

The District of Columbia Public Schools Nature Computer Camp is an environmental/computer program conducted in the Catoclin Mountain Park, at Camp Round Meadow. The National Park Service has cooperated with D. C. Schools since 1983 to keep this program operational.

The 1991 summer camp was funded by Chapter II LEA with supporting funds from Substance Abuse Prevention and Education (S.A.P.E.), and the Office of the Superintendent. In addition to regularly scheduled activities, S.A.P.E., conducted workshops at the campsite for staff and campers. The workshops focused on peer pressure and drug problems.

A total of 406 students participated in the five week summer program that ran from July 8, 1991 to August 9, 1991. Activities and tasks required for the program to become operational were as follows:

1. Negotiation of a cooperative agreement between the District of Columbia Public Schools and the National Park Service.
2. Invitations for student participation were sent to principals of elementary schools with sixth grade classes.
3. Staff interviews were conducted and recommendations submitted for personnel action.
4. "On Call" physicians were confirmed to provide emergency services for the five camp sessions. A resident nurse is also on staff at the camp.

5. Requests for logistical support were submitted to the following District of Columbia Public School Offices.

Procurement
Facilities Management
Transportation
Supply Management
Educational Media Center
Human Resource Management
Local School Principals

6. Staff development/orientation was conducted at the campsite for all staff over a three (3) day period prior to the arrival of campers. Activities included the following:

First Aid Workshop
Camp Safety Seminar
Interpersonal Relationship Seminar
Computer Training Workshop
Trail Orientation
Small Group Planning

Attached is a record of system-wide participation for the 1991 program.

NATURE-COMPUTER CAMP
SUMMER 1991

SCHEDULE OF ACTIVITIES

ROUND MEADOW CAMP
THRUMONT, MD.

MONDAY

- | | |
|-------------|--|
| 8:45 | Buses leave D.C. |
| 10:30 | Buses arrive at Round Meadow |
| 10:45 | Orientation - dorm assignments, general rules and regulations
(outside-in cafeteria if raining) |
| 11:30 | Settling in dorms (counselors making sleeping assignments) |
| 12:15 | Lunch (cafeteria style) all groups |
| 1:00 - 1:55 | Pre-test Teachers (with homeroom groups)
Trailblazers - (classroom #1) - Evelyn
Backpackers - (rear of cafeteria) - Brenda
Loopers - (E.C.) - Sam
Micro-Chips - (classroom #2) - Richard |
| 2:00 - 2:55 | "Rap Shop" all groups with counselors |
| 3:00 - 3:55 | Computer Orientation - Loopers (Connie & Alan)
Arts & Crafts - Micro Chips (Andre & Sia)
Recreational Activities - Trailblazers and Backpackers (counselors with their groups) |
| 4:00 - 4:55 | Computer Orientation - Backpackers (Evelyn & Kenneth)
Arts and Crafts - Trailblazers - (Tara & Gregg)
Recreational Activities - Loopers and Micro-Chips (counselors with their groups) |
| 5:15 | KP's to Cafeteria |
| 5:30 - 6:15 | Dinner (family style) |
| 7:00 - 7:55 | Computer Orientation - Micro Chips (Lonnle & Andre)
Arts and Craft - Loopers - (Alan & Denise)
Trails Orientation - (conference room) - Trailblazers and Backpackers,
(Brenda, Tara, and Kenneth) |
| 8:00 - 8:55 | Computer orientation - Trailblazers (Evelyn & Gregg)
Arts and Crafts - Backpackers (Allison & Kenneth)
Trails Orientation (conference room Loopers and Micro-Chips
(Sam, Alan and Sia) |
| 9:15 | Preparation for bed |
| 10:15 | Lights Out |

TUESDAY

7:00	Wakeup
7:30	KP's to cafeteria Aerobics (all staff)
7:45	Breakfast (family style) all groups and staff
8:30 - 8:50	Cleaning dorms (all groups with their counselors)
9:00 - 12:00	Classes (all groups) Loopers - Stream Ecology (Richard & Alan) Backpackers - Woodland Ecology (Brenda & Allison) Trailblazers - Computers (Lonnie & Gregg) Micro-Chips - Computers (Evelyn & Sia)
12:00 - 12:45	Lunch (cafeteria style)
12:45 - 1:00	Free time
1:10 - 4:00	Micro-Chips - Woodland Ecology (Brenda & Andre) Trailblazers - Geology (Sam & Tara) Loopers - Computers (Evelyn & Denise) Backpackers - Computers (Connie & Kenneth)
4:15 - 5:10	Recreational Activities (all groups with their counselors)
5:15	KP's to cafeteria
5:30 - 6:15	Dinner (family style all groups)
6:30 - 7:25	Nature Scavenger Hunt (all groups) Trailblazers (Tara & Gregg) Backpackers (Kenneth & Allison) Loopers (Alan & Denise) Micro-Chips (Andre & Sia)
7:30 - 8:30	Computer Practice - Loopers and Backpackers (Sam, Alan & Allison) Nature Bingo - Micro-Chips and Trailblazers (Connie, Sia & Gregg)
8:35 - 9:35	Computer Practice - Micro-Chips and Trailblazers (Sam, Andre & Tara) Nature Bingo - Loopers & Backpackers (Evelyn, Denise & Kenneth)
9:35	Preparation for bed
10:15	Lights Out

WEDNESDAY

7:00	Wake-up
7:30	KP's to cafeteria Aerobics (all staff)
7:45	Breakfast - all groups and staff (family style)
8:30 - 8:50	Cleaning dorms (all group with their counselors)
9:00 - 12:00	Classes (all groups) Loopers - Computers (Connie & Denise) Backpackers - Computers (Keneth & Evelyn) Trailblazers - Stream Ecology (Richard & Tara) Micro-Chips - Geology (Sam & Andre)
12:00 - 12:45	Lunch (cafeteria style)
12:45 - 1:00	Free time
1:00 - 4:00	Classes (all groups) Loopers - Woodland Ecology (Brenda & Alan) Backpackers - Geology (Sam & Allison) Trailblazers - Computers (Connie & Gregg) Micro-Chips - Computers (Evelyn & Sia)
4:15 - 5:15	Extracurricular Activities (all groups with their counselors)
5:15	KP's to cafeteria
5:30 - 6:15	Dinner (family style) all groups
6:30 - 7:30	Recreational Activities (all groups with their counselors)
7:30 - 8:30	Computer Practice - Loopers and Backpackers (Brenda, Denise & Keneth) Extracurricular Activities - Trailblazers and Micro-Chips (with their counselors)
8:35 - 9:35	Computer Practice - Trailblazers and Micro-Chips (Sam, Gregg & Sia) Extracurricular Activities - Loopers and Backpackers - (with their counselors)
9:40	Preparation for bed
10:15	Lights Out

THURSDAY

7:00	Wake-up
7:30	KP's to cafeteria Aerobics (all groups & staff)
7:45	Breakfast (family style) all groups & staff
8:30 - 8:50	Cleaning dorms (all groups with their counselors)
9:00 - 12:00	Classes (all groups) Loopers - Geology (Sam & Denise) Backpackers - Stream Ecology (Richard & Kenneth) Trailblazers - Computers (Connie & Gregg) Micro-Chips - Computers (Sia & Evelyn)
12:00 - 12:45	Lunch
12:45 - 1:00	Free time
1:00 - 4:00	Classes (all groups) Loopers - Computers (Connie & Alan) Backpackers - Computers (Evelyn & Allison) Trailblazers - Woodland Ecology (Brenda & Tara) Micro-Chips - Stream Ecology (Richard & Andre)
4:15 - 5:15	Extracurricular Activities (all groups with their counselors)
5:15	KP's to cafeteria
5:30 - 6:15	Dinner (family style) all groups & staff
6:30 - 8:30	Mini-Olympics (all groups & staff)
8:35 - 9:35	Campfire Activities
9:40	Preparation for bed
10:15	Lights Out

FRIDAY

7:00	Wake-up
7:30	KP's to cafeteria Aerobics
7:45	Breakfast - (family style) all groups and staff
9:00	Post-Tests (all groups) Teachers with homeroom group Trailblazers - (classroom #1) - Evelyn Backpackers - (rear of cafeteria) - Brenda Loopers - (E.C.) - Sam Micro-Chips - (classroom #2) Richard
10:00 - 11:10	Camp "Shakedown"
11:15 - 12:10	"Rap Shop" Counselors (with their groups)
12:15 - 12:40	Lunch
12:45	Board buses for D.C.

APPENDIX B
RECORDS OF STUDENT
PARTICIPATION BY SCHOOL

NATURE COMPUTER CAMP STUDENT PARTICIPATION

WEEK 1

JULY 8 - 12, 1991

School	Students Registered	Students Confirmed	Actual Participation	Comments
Brookland	9	9	7	
Bowen	2	2	0	
Brent	1	1	1	
Langdon	13	13	11	
Kingsman	1	1	1	
Audlow Taylor	6	6	4	
Martin Luther King	4	3	2	
Miner	6	6	5	
Nalle	13	10	10	
Dyster	4	4	1	
Plummer	1	1	1	
Raymond	5	5	4	
Richardson	8	8	7	
River Terrace	2	2	2	
Slater-Langston	1	1	1	
Stuart-Hobson	10	10	9	
Steven	1	1	1	
Takoma	4	4	3	
West	10	7	4	
Webb	1	1	1	
Young	6	4	5	
TOTAL	108	99	80	

WEEK 2

NATURE COMPUTER CAMP
STUDENT PARTICIPATION

JULY 15-19, 1991

School	Students Registered	Students Confirmed	Actual Participation	Comments
Bancroft	3	3	2	
Beers	13	13	11	
Burville	11	11	6	
Brightwood	2	2	1	
Garfield	1	1	0	
Hardy	11	11	7	
Hearst	1	1	1	
Ketcham	6	6	6	
M.L. King	3	2	2	
Kingsman	11	11	11	
Moten	4	4	3	
Orr	1	1	0	
Parkview	8	8	6	
Patterson	7	7	6	
Randle Highland	4	4	3	
Slater-Langston	1	1	1	
Oyster	1	1	1	
Tyler	1	1	1	
Van Ness	1	1	0	
West	1	1	1	
J.O. Wilson	10	10	8	
H.D. Cooke	6	4	4	
Special Arr.	1	1	1	

TOTAL

108

105

82

WEEK 3

NATURE COMPUTER CAMP
STUDENT PARTICIPATION

JULY 22-26, 1991

School	Students Registered	Students Confirmed	Actual Participation	Comments
Beers	3	2	2	
Bruce-Monroe	8	8	6	
Harris Ed. Center	11	10	6	
Hearst	2	1	0	
Hendley	13	12	10	
Houston	3	3	3	
Keene	5	5	3	
Kingsman	2	2	1	
LaSalle	6	6	3	
Leckie	4	4	1	
Langdon	4	4	2	
McGogney	3	3	0	
Moten	2	1	1	
Parkview	8	6	5	
Richardson	2	2	1	
Shepherd	13	11	10	
Stuart-Hobson	3	3	3	
Syphax	8	7	3	
Webb	1	1	1	
West	14	13	13	
SPECIAL ARR.	4	4	2	
TOTAL	109	98	76	

WEEK 4

NATURE COMPUTER CAMP
STUDENT PARTICIPATION

JULY 29-AUG. 2, 1991

School	Students Registered	Students Confirmed	Actual Participation	Comments
Adams	4	2	2	
Amidon	1	0	0	
Beers	6	2	5	
Benning	3	1	1	
Brent	10	7	8	
Brookland	1	0	1	
Burroughs	1	1	1	
Drew	1	1	1	
Aiton	1	1	1	
Gibbs	9	8	8	
Goding	1	1	1	
Harris	3	2	3	
Janney	8	5	7	
Kimball	5	3	2	
Meyer	6	5	4	
Montgomery	2	1	0	
Langdon	1	0	0	
Kenilworth	1	1	1	
McGogney	1	0	1	
Parkview	1	1	1	
Orr	8	5	4	
Davis	12	10	9	
Petworth	4	3	2	

WEEK 4
Page 2

NATURE COMPUTER CAMP STUDENT PARTICIPATION

JULY 29-AUG. 2, 1991

[illegible]

NATURE COMPUTER CAMP
STUDENT PARTICIPATION

August 5-9, 1991

School	Students Registered	Students Confirmed	Actual Participation	Comments
Benning	1	1	1	
Beers	11	9	9	
Brent	1	1	1	
Brightwood	1	1	1	
Buchanan	1	1	1	
Burroughs	11	7	8	
Drew	4	2	2	
Emery	2	1	1	
Ft. Lincoln	1	1	1	
Gage-Eckington	3	1	1	
Garrison	10	6	4	
Green	9	9	9	
Hendley	8	6	4	
Houston	1	1	1	
Kimball	1	1	1	
M.L. King	13	8	6	
Langdon	2	2	2	
Malcolm X	2	1	1	
Maury	2	2	2	
Noyes	1	1	0	
Oyster	2	2	2	
Randle Highland	1	1	1	
Raymond	4	4	3	

WEEK 5

NATURE COMPUTER CAMP STUDENT PARTICIPATION

August 5-9, 1991

[illegible]

NATURE COMPUTER CAMP STUDENT PARTICIPATION SUMMARY

SESSION	Students Registered	Students Confirmed	Actual Participation	Comments
July 8-12, 1991	108	99	80	
July 15-19, 1991	108	105	82	
July 22-26, 1991	109	98	76	
July 29-Aug 2, 1991	114	79	81	
August 5-9, 1991	125	98	87	
TOTAL	564	479	406	

APPENDIX C
STUDENT CERTIFICATE OF PARTICIPATION

District of Columbia Public Schools
Participation Award

This certifies that

of the

"TRAILBLAZERS"

has been awarded this certificate
for participation in the
Round Meadow
Nature Computer Camp

Camp Director

Resident Camp Manager

Counselor

Date _____

APPENDIX D
TEACHER CHECKLIST

Teacher Checklist

Below is a list of competencies and skills that we expect of our campers upon completion of a session at the Nature Computer Camp. Please evaluate each camper as fairly as possible by checking whether he/she was able to master the skill or not. If the skill was not observed, please indicate this on the checklist.

Thank you for your cooperation.

Teacher _____ Session _____ Camper _____ Date _____

	A	B	C
	Mastered	Not Mastered	Not Observed
A. COMPUTER SKILLS			
91. Set up computer for operation			
92. Turn computer on and off			
93. Identify components and functions			
94. Distinguish between commands and statements			
95. Locate points on graph paper			
96. Plot points on CRT			
97. Graph a rectangle			
98. Write a program for plotting a rectangle			
99. Construct a scrapbook on computer literacy			
B. WOODLAND ECOLOGY SKILLS			
100. Name and identify at least three different trees found on the trail			
101. Give examples of plant and animal interdependency			
102. Name a producer and tell what it produces			
103. Name three consumers in a woodland community			
104. Describe the role of a decomposer			
C. STREAM ECOLOGY SKILLS			
105. Measure the rate of flow, temperature and depth of a stream			
106. Use collected stream specimens to help describe the kinds of organisms that populate a stream			
107. Name and distinguish the various stages of metamorphosis			
108. Describe at least one example of interdependence in a stream			
109. Infer how factors such as temperature, velocity, pH and light can affect the numbers and kinds of organisms in a stream			

D. GEOLOGY SKILLS

	A	B	C
	Mastered	Not Mastered	Not Observed
110. Classify rocks as igneous, sedimentary or metamorphic			
111. Name at least three characteristics of rocks and minerals			
112. Describe three characteristics that make soils different			
113. Identify and describe some evidence of weathering and erosion			
114. Use a compass to locate different directions			
115. Describe and infer evidence of the earth undergoing constant change			
116. Other Skills: _____			

APPENDIX E
STUDENTS' ATTITUDE SURVEY

Name _____ ID _____ School _____

Age _____ Date _____

Grade _____ Boy or Girl (circle one)

Direction: We would like to know your feelings about the natural environment, computers and living with others. Please read each statement and indicate with a checkmark () whether you agree a lot, agree a little, are undecided, disagree a lot or disagree a little.

	a	b	c	d	e
It is fun to:	Agree a lot	Agree a little	Undecided	Disagree a lot	Disagree a little
*41. learn at an outdoor school					
42. live and work with students from other schools					
43. make friends with students from other schools					
44. solve science problems					
45. learn about rocks and soils					
46. collect rocks and soils					
47. learn about animals that live in the forest					
48. learn about plants in the forest					
49. collect small animals from a stream					
50. learn about computers					
51. use computers					
52. be taught by different teachers					

*Responses should start at 41 on the General Purpose answer sheet.

Prepared by
Division of Quality Assurance

APPENDIX F
COUNSELOR CHECKLISTS

Nature Computer Camp
Counselor Checklist

We are interested in the social behaviors of the campers. Certain of these behaviors are listed below. Please indicate by checking on the scale provided whether the behaviors were observed all the time, most of the time, part of the time or never. If you don't know, please indicate. Also state in the space provided other social behaviors worth noting.

Thank you for your cooperation.

Counselor _____ Session _____ Camper _____ Date _____

	A	B	C	D	E
	All of the time	Most of the time	Some of the time	Never	Don't Know
61. Follows camp rules and regulations					
62. Keeps camp facilities and grounds clean					
63. Uses camp equipment with care					
64. Remains within the boundaries of the camp at all times					
65. Practices safety rules on trails and at the campsite					
66. Stays away from unsupervised areas					
67. Participates in camp activities					
68. Reports to camp activities on time					
69. Completes assignments on time					
70. Follows instructions of camp personnel					
71. Is verbally abusive					
72. Is physically abusive					
73. Is cooperative					
74. Maintains a good relationship with other campers					
75. Maintains a good relationship with teachers and counselors					
Other social behaviors (identify below, and rate on the scale)					
76.					
77.					
78.					

APPENDIX G
STUDENTS' RATING SCALE

Directions: Please rate each item by circling a number from 1 to 5.

Rating Scale 1 - low 5 - high

New Things I Learned	1	2	3	4	5
Stream Ecology	1	2	3	4	5
Woodland Ecology	1	2	3	4	5
Geology	1	2	3	4	5
Computer Class	1	2	3	4	5
Counselors	1	2	3	4	5
Dormitory	1	2	3	4	5
Food	1	2	3	4	5
Mini Olympics	1	2	3	4	5
Scavenger Hunt	1	2	3	4	5
Man on the Moon	1	2	3	4	5
Nature Bingo	1	2	3	4	5
Skits	1	2	3	4	5
Computer Practice	1	2	3	4	5
The Whole Camp	1	2	3	4	5
Teachers	1	2	3	4	5
Camp Manager	1	2	3	4	5

☐ Trailblazer

☐ Looper

☐ Backpacker

☐ Microchip